

## CONSENSUS DRAFT HATCHERY LISTING POLICY: 25MARCH04

- ① Under NOAA Fisheries 1991 Evolutionary Significant Unit (ESU) policy (56 FR 58612; November 20, 1991), a distinct population segment of a Pacific salmonid species is considered for listing if it meets two criteria: (a) it must be substantially reproductively isolated from other conspecific population units; and (b) it must represent an important component in the evolutionary legacy of the species. A key feature of the ESU concept is the recognition of genetic resources that represent the ecological and genetic diversity of the species. These genetic resources can reside in a fish spawned in a hatchery (hatchery fish) as well as in a fish spawned in the wild (natural fish).
- ② In delineating an ESU to be considered for listing, NOAA Fisheries will identify all populations that are part of the ESU including populations of natural fish (natural populations), populations of hatchery fish (hatchery fish), and populations that include both natural fish and hatchery fish (mixed populations). Hatchery fish that are genetically no more than moderately divergent from a natural population in the ESU are considered part of the ESU, will be considered in determining whether an ESU should be listed under the ESA, and will be included in any listing of the ESU.
- ③ Status determinations for Pacific salmonid ESUs will be based on the likelihood of extinction of an entire ESU. In assessing the likelihood of extinction of an ESU, NOAA Fisheries will recognize the necessity of conserving natural populations within the ESU, in line with the ESA's stated purpose to conserve "the ecosystems upon which endangered and threatened species depend," section 2(b). Natural populations that are stable or increasing, are spawning in the wild, and have adequate spawning and rearing habitat reduce the risk of extinction of the ESU. Such natural populations, particularly those with minimal genetic contribution from hatchery fish, can provide a point of comparison for the evaluation of the effects of hatchery fish on the likelihood of extinction of the ESU.
- ④ Status determinations for Pacific salmonid ESUs generally consider four key attributes: abundance, productivity, genetic diversity, and spatial distribution. The effects of hatchery fish on the likelihood of extinction of an ESU will depend on which of the four key attributes are currently limiting the ESU, and how the hatchery fish within the ESU affect each of the attributes. The presence within an ESU of hatchery fish that are genetically no more than moderately divergent from a natural population in the ESU can reduce the likelihood of extinction of the ESU, and affect a listing determination, by contributing to increasing abundance and productivity of the ESU, by improving spatial distribution, and by serving as a source population for repopulating unoccupied habitat. Conversely, a hatchery program managed without adequate consideration of conservation effects can increase the likelihood of extinction of an ESU, and affect a listing determination, by reducing genetic diversity of the ESU and reducing the productivity of the ESU. In evaluating the effect of hatchery fish in reducing the likelihood of extinction of an ESU, the presence of a long-term hatchery monitoring and evaluation program is an important consideration.
- ⑤ Hatchery programs are capable of producing more fish than may be immediately useful in the conservation and recovery of an ESU and can play an important role in fulfilling trust and treaty obligations with regard to harvest of some Pacific salmonid populations. For ESUs listed as threatened, NOAA Fisheries will, where appropriate, exercise its authority under Section 4(d) of the ESA to allow the harvest of listed hatchery fish that are surplus to the conservation and recovery needs of the ESU in accordance with approved harvest plans.